

WE CLAIM:

1. An isolated SARS-related protein having a molecular weight of approximately 47 kDa.
- 5 2. The protein of claim 1, having a sequence as shown in Figure 1 and homologs, analogs, fragments or derivatives thereof.
3. An isolated SARS-related protein having a molecular weight of approximately 139 kDa.
4. The protein of claim 3, having a sequence as shown in Figure 2
10 and homologs, analogs, fragments or derivatives thereof.
5. An antibody reactive against a protein according to any one of claims 1 to 4.
6. A method of detecting a coronavirus or a condition associated with a coronavirus comprising assaying a sample for (a) a SARS-related
15 protein or a fragment thereof; or (b) an antibody that binds a SARS-related protein or a fragment thereof.
7. A method according to claim 6 which comprises contacting a SARS-related protein of any one of claims 1 to 4 or a functional fragment thereof, with the sample and determining the presence of antibodies to the
20 SARS-related protein in the sample.
8. A method according to claim 6 which comprises contacting an antibody of claim 5, or a functional fragment thereof, with the sample and determining the presence of a SARS-related protein in the sample.
9. A method according to any one of claims 6 to 8 wherein the
25 condition is SARS.
10. A method of treating or preventing a condition associated with coronavirus comprising administering an effective amount of a SARS-related protein antagonist.
11. A method according to claim 10 wherein said SARS-related
30 protein antagonist is an antibody according to claim 5.
12. A method according to claim 10 or 11 wherein said condition is SARS.

13. A vaccine for treating or preventing a condition associated with a coronavirus comprising an effective amount of (a) a SARS-related protein or fragment thereof; or (b) an antibody that binds a SARS-related protein in admixture with a suitable diluent or carrier.
- 5 14. A method of screening for a compound capable of binding to a protein according to any one of claims 1 to 4, or a functional fragment thereof comprising contacting the polypeptide or functional fragment thereof with a test compound and determining the ability of said test compound to bind to said protein or fragment thereof.
- 10 15. A compound identified according the method of claim 14.
16. The compound of claim 14 wherein said compound is an agonist or antagonist.